

2/S11
v 2.4 (hr)



SLOT DIFFUSER

SR

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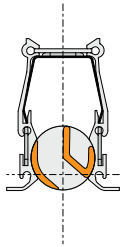
Definition of symbols:

V [m ³ /h]	- Airflow rate
V^p [m ³ /hm]	- Airflow rate per meter length
V_2 [m ³ /hm ²]	- Airflow rate per room area
A_{ef} [m ²]	- Effective outlet area
v_L [m/s]	- Core velocity
v_h [m/s]	- Air velocity between two diffusers
L [m]	- Diffuser length
B_{min} [m]	- Distance between two diffusers
h [m]	- Installation height
L_{WA} [dB(A)]	- Sound power level
Δp [Pa]	- Pressure drop

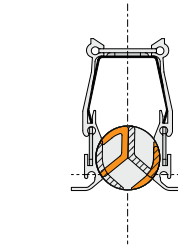
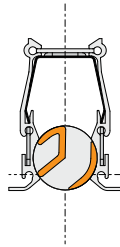


SR

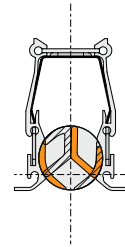
- Ceiling diffuser for room heights from 2,7 to 5m.
- Made out of anodized aluminium profiles
- 1-row, 2-row, 3-row and 4-row version
- Length from 300 to 2000 mm (step 100 mm).
- Individually adjustable discharge elements SR30 and SR50.



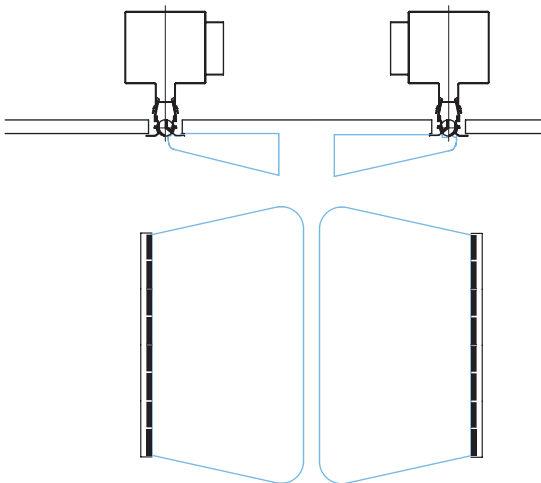
Horizontal one-sided discharge



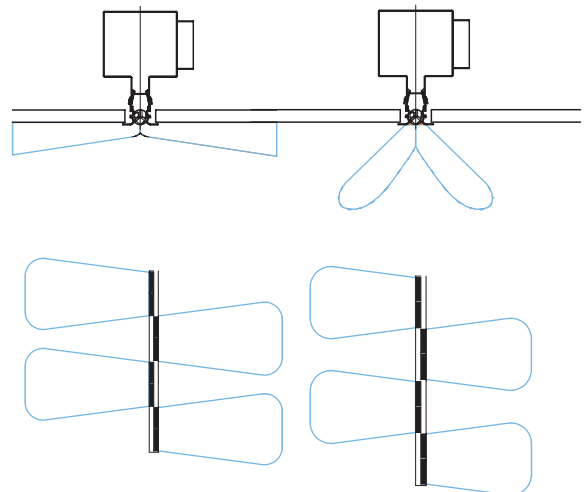
Horizontal two-sided discharge



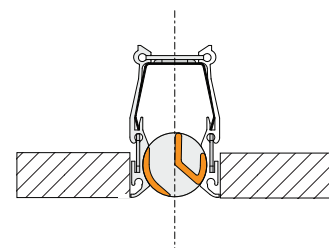
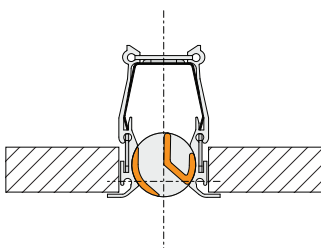
Two-sided discharge at an angle



Slot diffuser



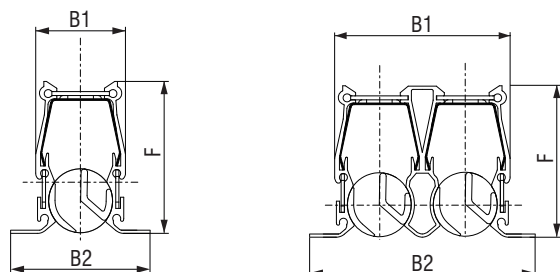
Narrow slot diffuser



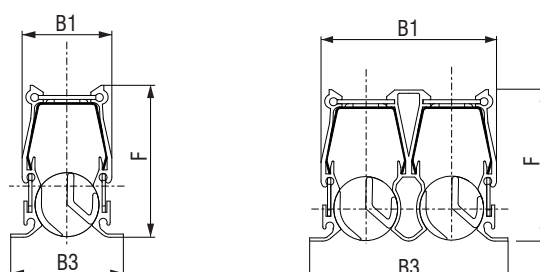
SLOT DIFFUSER

Dimensions

Slot diffuser



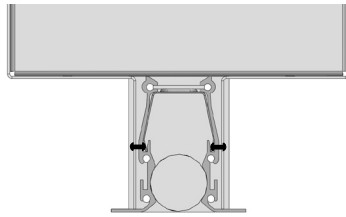
Narrow slot diffuser



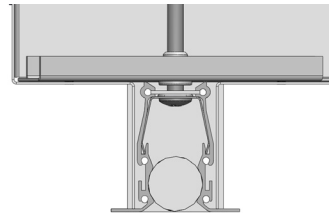
Type	No. of rows	A _{ef} [m²/m]	L [mm]	V [m³/h m]	h [m]	B1 [mm]	B2 [mm]	B3 [mm]	A [mm]	B [mm]	C [mm]	øD [mm]	No. of connections	E [mm]	F [mm]	G [mm]
SR 30	1	0,00752	do 1000	40 -130	2,7 -4,0	28	47,5	35	221	120	174	98	1	L / 2	47,5	47
			1100-1500									98	2	300		
			1600-2000									123	2	400		
	2	0,01504	do 1000	70 -240	2,7 -4,5	55	74,5	62	236	150	189	138	1	L / 2		47
			1100-1500									123	2	300		
			1600-2000									138	2	400		
	3	0,02256	do 1000	120 -320	3,0 -5,0	82	101,5	89	261	179	215	158	1	L / 2		47
			1100-1500									138	2	300		
			1600-2000									158	2	400		
	4	0,03008	do 1000	160 -400	3,5 -5,0	109	128,5	119	301	210	255	198	1	L / 2		47
			1100-1500									158	2	300		
			1600-2000									198	2	400		

Type	No. of rows	A _{ef} [m²/m]	L [mm]	V [m³/h m]	h [m]	B1 [mm]	B2 [mm]	B3 [mm]	A [mm]	B [mm]	C [mm]	ø D [mm]	No. of connections	E [mm]	F [mm]	G [mm]
SR 50	1	0,01504	do 1000	75 -210	2,7 -4,0	43,5	71	51	252	130	195	123	1	L / 2	57,5	57
			1100-1500									123	2	300		
			1600-2000									138	2	400		
	2	0,03008	do 1000	130 -390	2,7 -4,5	93,5	121	101	272	180	215	158	1	L / 2		57
			1100-1500									138	2	300		
			1600-2000									158	2	400		
	3	0,04512	do 1000	195 -520	3,0 -5,0	143,5	171	151	312	230	255	198	1	L / 2		57
			1100-1500									158	2	300		
			1600-2000									198	2	400		
	4	0,06016	do 1000	260 -650	3,5 -5,0	193,5	221	201	337	280	280	223	1	L / 2		57
			1100-1500									198	2	300		
			1600-2000									223	2	400		

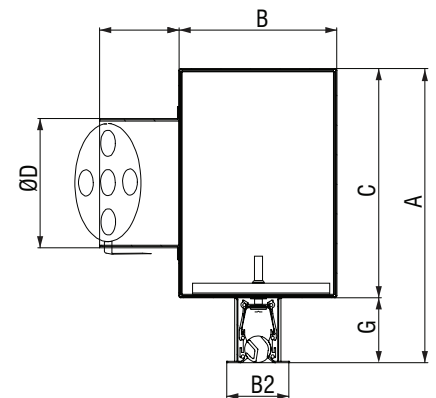
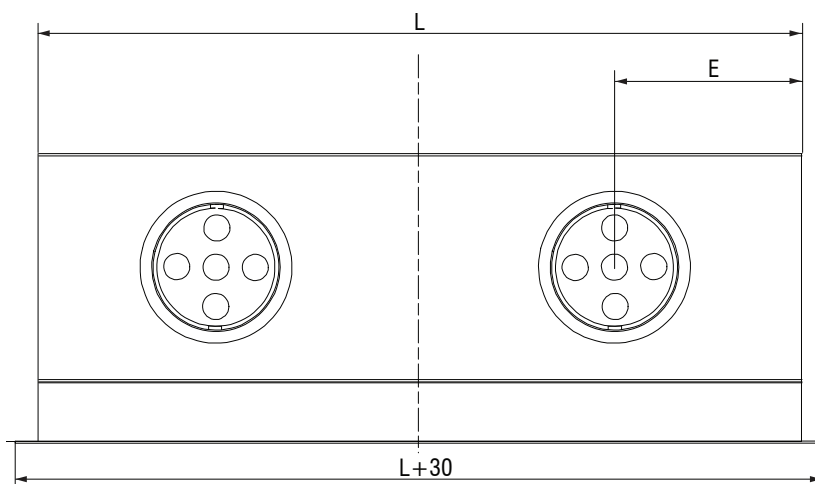
Fixing onto plenum box



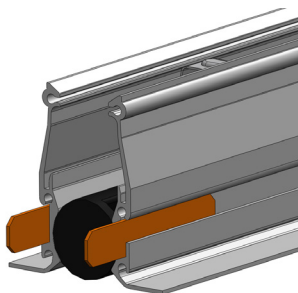
- fixing with rivets



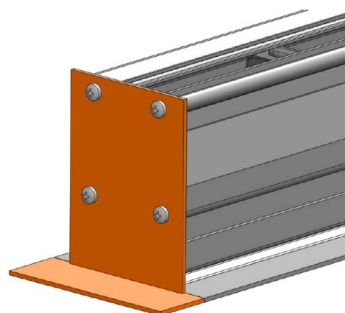
- fixing with cross-member



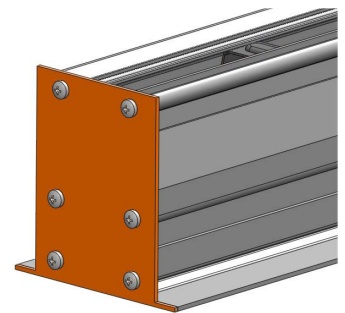
Connecting slot diffusers in series with connecting plate



End profile L1 (L2)



End plate I1 (I2)

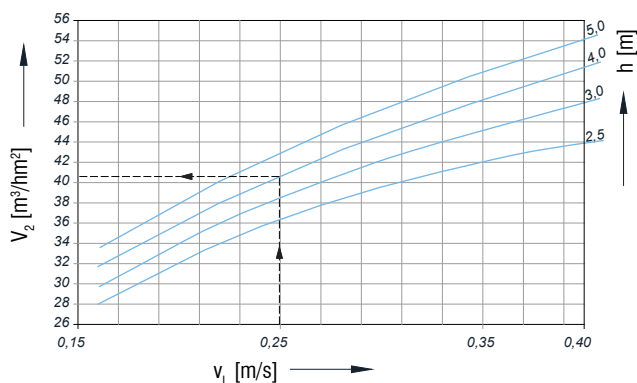


SELECTION DIAGRAM - SR30

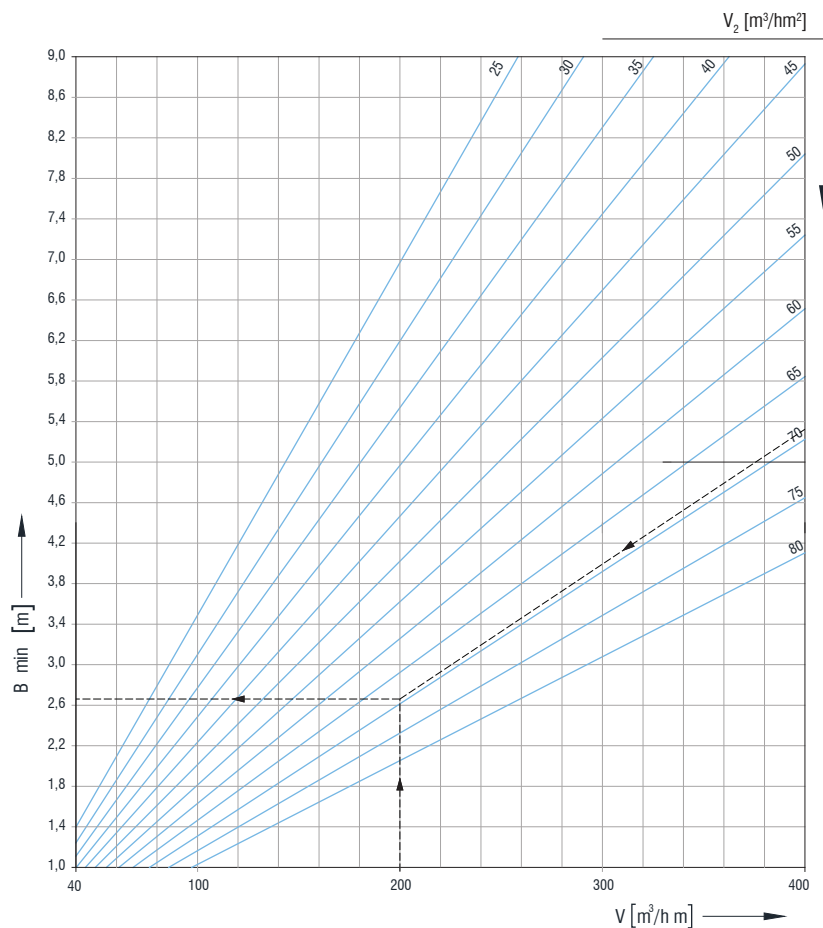
Maximum flow correction factor per 1 m² of room area, in regards to maximum temperature difference Δt

	$\Delta t = -12K$	$\Delta t = -10K$	$\Delta t = -8K$	$\Delta t = -6K$	$\Delta t = -6K$
$\Delta V_p =$	x 1,00	x 1,00	x 1,15	x 1,35	x 1,70

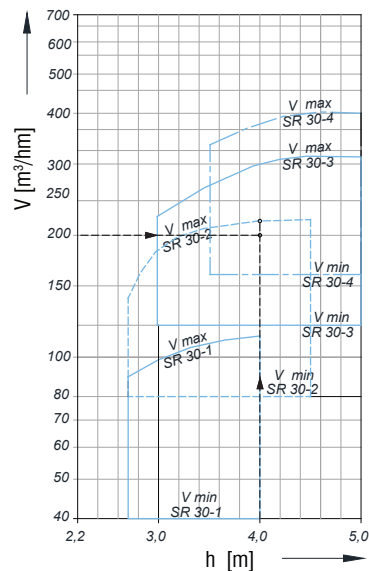
Maximum airflow rate of SR30 per 1m² of room area, for maximum temperature difference $\Delta t = -12K$



Minimum distance between two slot diffusers SR30



Airflow rate per 1 meter length



Example:

Given:

SR 30-2

$V = 400 \text{ m}^3/\text{h}$ $L = 2 \text{ m}$
 $v_L = 0,25 \text{ m/s}$ $\Delta t_z = -4^\circ\text{C}$
 $h = 4 \text{ m}$ Supply

Solution:

Diagram 1:

$V_2 = 40,5 \text{ m}^3/\text{hm}^2$

Correction = $40,5 \times 1,70 = 68,85 \text{ m}^3/\text{hm}^2$

Diagram 2:

$V_{max} = 210 \text{ m}^3/\text{hm}$

$V = 200 \text{ m}^3/\text{hm}$

Diagram 3:

$B_{min} = 2,7 \text{ m}$

Diagram 4:

$L_{WA} = 36 \text{ dB(A)}$

Correction (damper open 50%):

$36 + 2 = 38 \text{ dB(A)}$

Diagram 5:

$\Delta p = 33 \text{ Pa}$

Correction (damper open 50%):

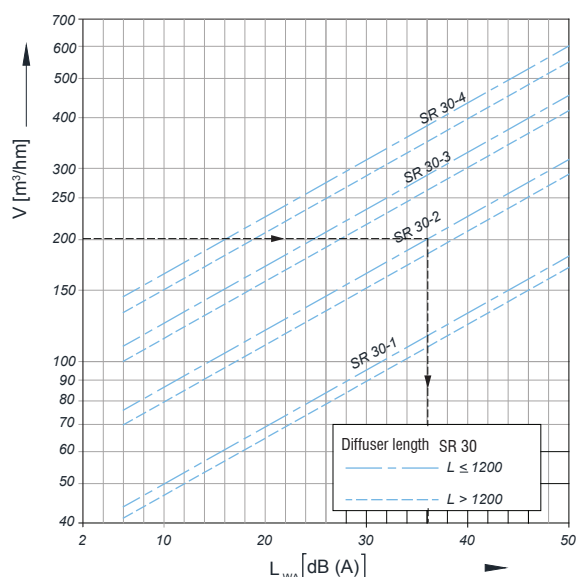
$33 \times 1,4 = 46,2 \text{ Pa}$

Sound power level correction factor L_{WA} [dB(A)] in regard to airflow damper position

Damper position	100% open	75% open	50% open	25% open	0% open
$\Delta L_{WA} =$	+0	+1	+2	+4	+6

For insulated plenum boxes sound power level is decreased by additional 2 dB(A)

SR 30 Sound power level - Supply air
(damper position 100% open)
- Non insulated plenum box

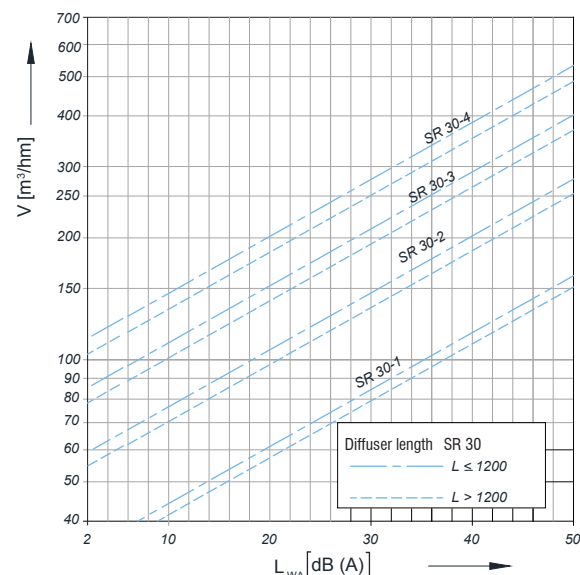


Sound power level correction factor L_{WA} [dB(A)] in regard to airflow damper position

Damper position	100% open	75% open	50% open	25% open	0% open
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For insulated plenum boxes sound power level is decreased by additional 2 dB(A)

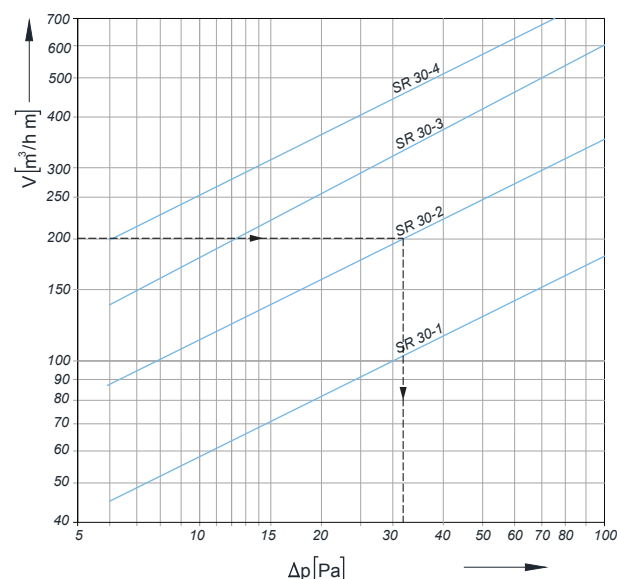
SR 30 Sound power level - Exhaust air
(damper position 100% open)
- Non insulated plenum box



Pressure drop correction factor L_{WA} [dB(A)] in regard to airflow damper position

Damper position	100% open	75% open	50% open	25% open	0% open
$\Delta p =$	x1,00	x1,2	x1,4	x1,7	x2,2

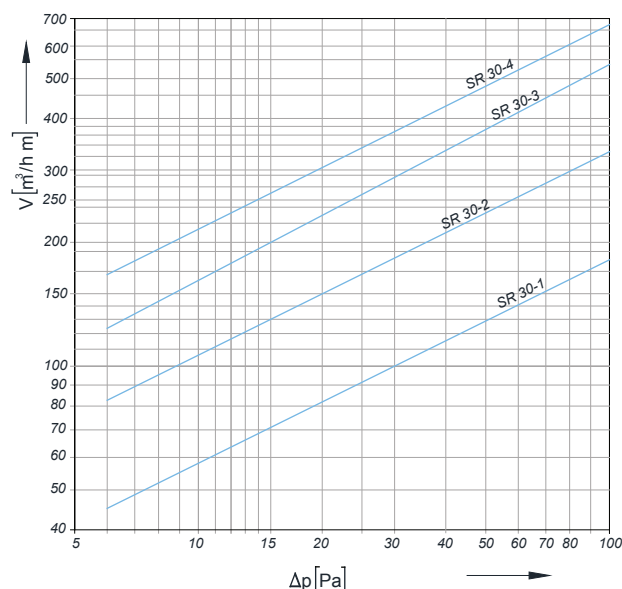
SR 30 Pressure drop - Supply air
(damper position 100% open)



Pressure drop correction factor L_{WA} [dB(A)] in regard to airflow damper position

Damper position	100% open	75% open	50% open	25% open	0% open
$\Delta p =$	x1,00	x1,6	x2,0	x2,4	x3,0

SR 30 Pressure drop - Exhaust air
(damper position 100% open)



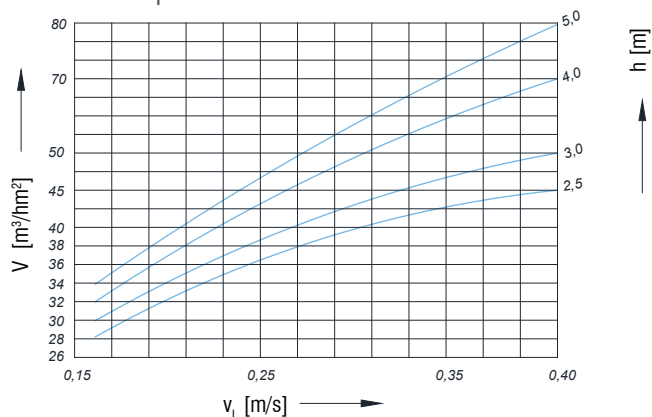
SLOT DIFFUSER

SELECTION DIAGRAM - SR 50

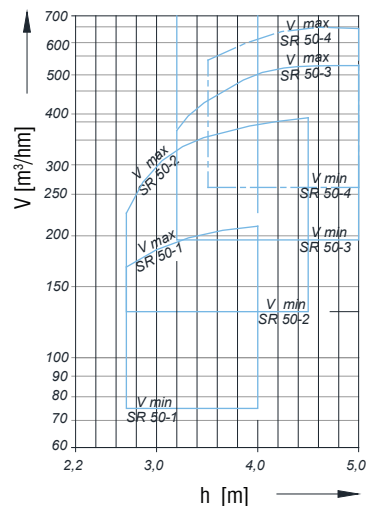
Maximum flow correction factor per 1 m² of room area, in regards to maximum temperature difference Δt

	$\Delta t = -12K$	$\Delta t = -10K$	$\Delta t = -8K$	$\Delta t = -6K$	$\Delta t = -6K$
$\Delta V_p =$	x 1,00	x 1,00	x 1,15	x 1,35	x 1,70

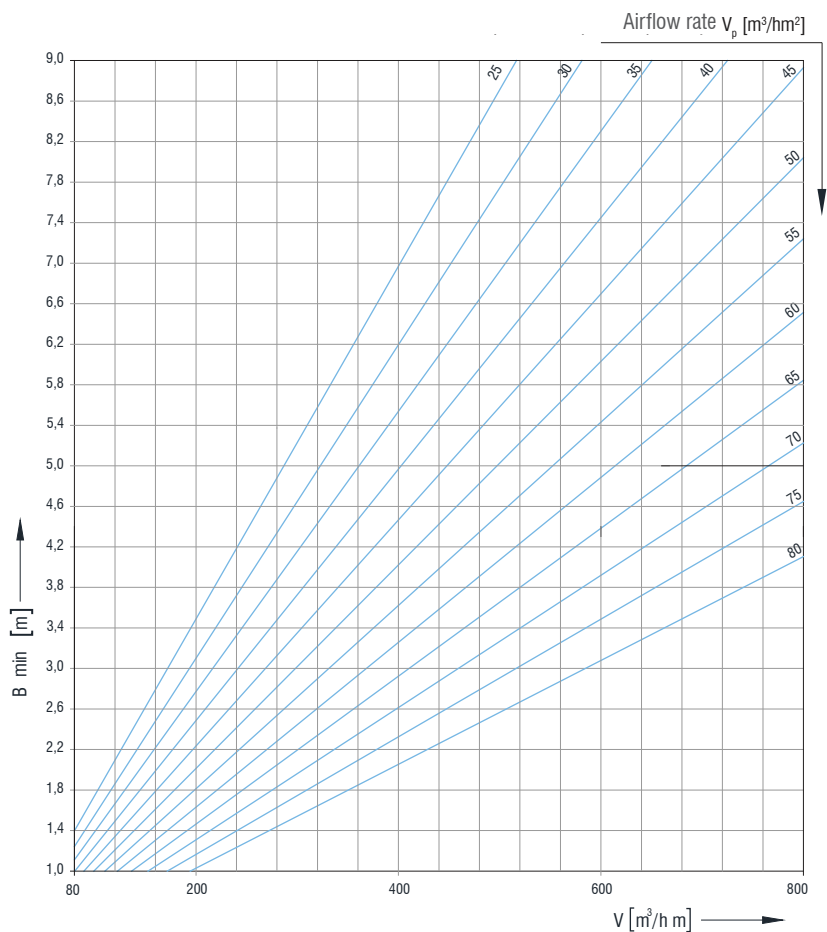
Maximum airflow rate of SR50 per 1m² of room area, for maximum temperature difference $\Delta t = -12K$



Airflow rate per 1 meter length



Minimum distance between two slot diffusers SR50

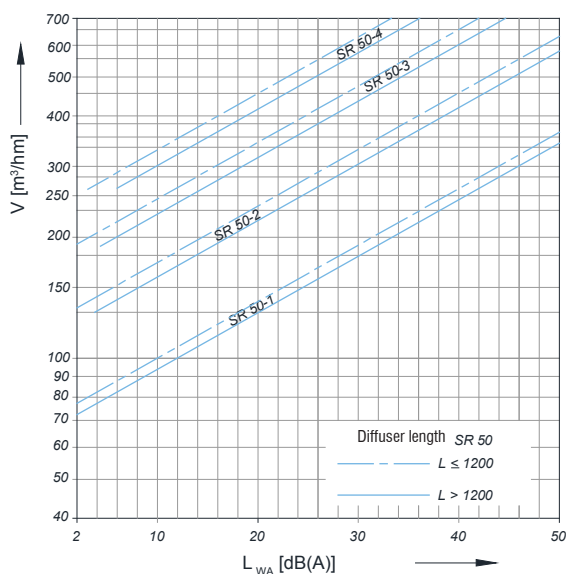


Sound power level correction factor L_{WA} [dB(A)] in regard to airflow damper position

Damper position	100% open	75% open	50% open	25% open	0% open
$\Delta L_{WA} =$	+0	+1	+2	+4	+6

For insulated plenum boxes sound power level is decreased by additional 2 dB(A)

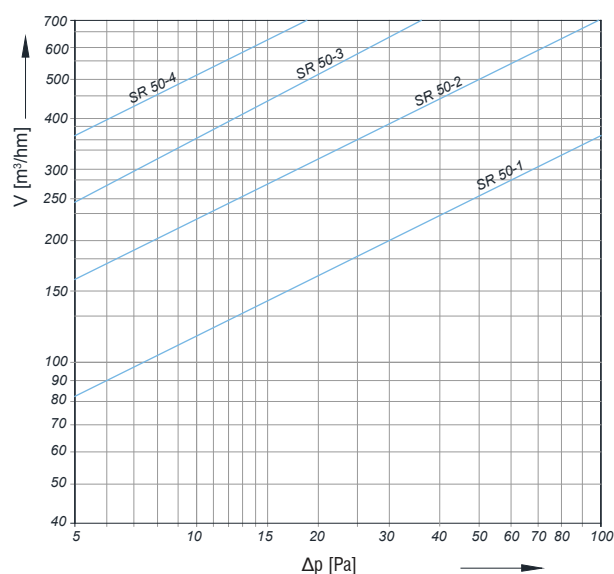
SR 50 Sound power level - Supply air
(damper position 100% open)
- Non insulated plenum box



Pressure drop correction factor L_{WA} [dB(A)] in regard to airflow damper position

Damper position	100% open	75% open	50% open	25% open	0% open
$\Delta p =$	x1,00	x1,2	x1,4	x1,7	x2,2

SR 50 Pressure drop - Supply air
(damper position 100% open)

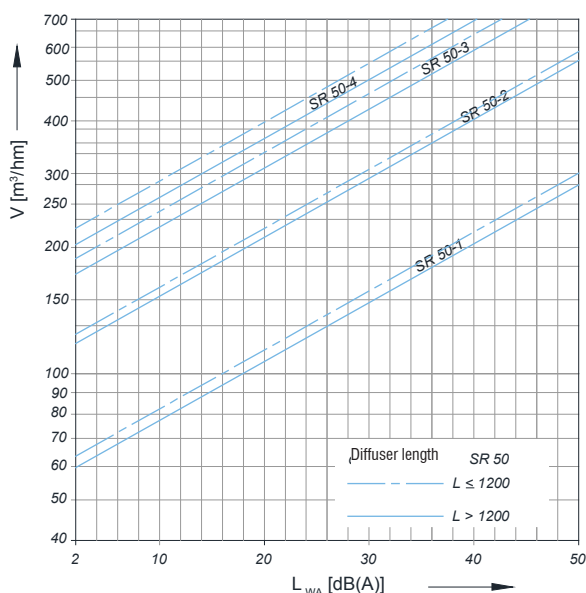


Sound power level correction factor L_{WA} [dB(A)] in regard to airflow damper position

Damper position	100% open	75% open	50% open	25% open	0% open
$\Delta L_{WA} =$	+0	+0	+1	+2	+2

For insulated plenum boxes sound power level is decreased by additional 2 dB(A)

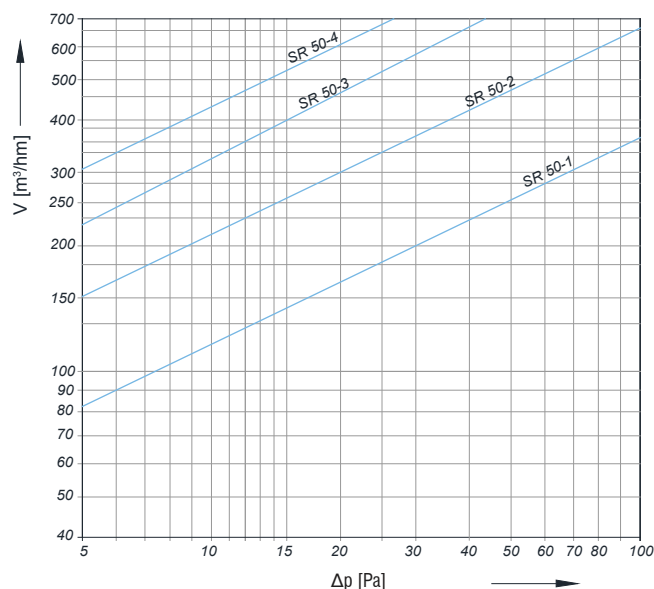
SR 50 Sound power level - Exhaust air
(damper position 100% open)
- Non insulated plenum box



Pressure drop correction factor L_{WA} [dB(A)] in regard to airflow damper position

Damper position	100% open	75% open	50% open	25% open	0% open
$\Delta p =$	x1,00	x1,2	x2,0	x2,4	x3,0

SR 50 Pressure drop - Exhaust air
(damper position 100% open)



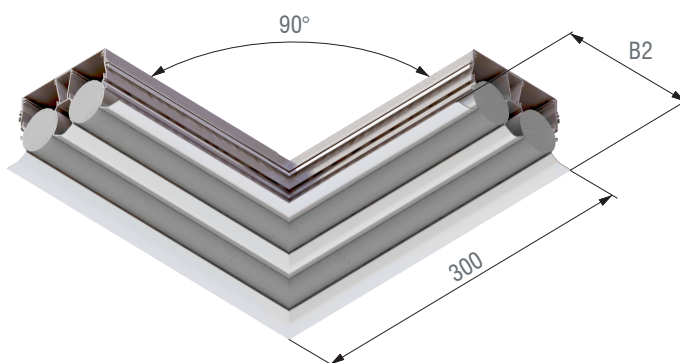
SLOT DIFFUSER

ORDERING KEY

Type (SR30, SR50)	SR30	- 2	- 1,4	- KZ	- T	- N	- B	- L2	- RAL..
Number of slots (1, 2, 3, 4)									
Diffuser length (1..2m, in increments of 0,1m)									
K - plenum box									
Z - insulation									
T - cross-member fixing									
F - fixing with rivets									
N - slot diffuser									
U - narrow slot diffuser									
C - black discharge elements									
B - white discharge elements									
S - grey discharge elements									
L1 - end profile on one side									
L2 - end profile on both sides									
I1 - end plate on one side									
I2 - end plate on both sides									

Corner section

- Corner section doesn't have air supply function
- Outer dimensions:
 - L=300 / 300 mm
 - Angle 90°
- Dimensions are referred to maximum outer dimensions (see image)



Corner section ordering key:

Type (SR30, SR50)	SR30	- 2	- 90	- B	- RAL..
Number of slots (1, 2, 3, 4)					
Corner section angle					
C - black discharge elements					
B - white discharge elements					
S - grey discharge elements					

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.